The Management of Lung Cancer
Pathway of Care
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1.0 Pathway Overview

**SYMPTOMATIC PATIENT**

- Smokers who present with new respiratory symptoms
- Smokers C/O persistent cough or increasing shortness of breath of 3/52 duration
- Any patient aged ≥ 40 years with unexplained haemoptysis and progressive shortness of breath, weight loss or chest/shoulder pain without obvious cause
- Hoarseness
- Finger clubbing
- Features suggestive of lung metastases
- Persistent cervical/supraclavicular lymphadenopathy

**GP CONSULTATION**

- URGENT Referral to Medical Registrar on Call (Stridor)
- Massive haemoptysis
- SVCO
- Physiologically unstable

**URGENT CXR**

- GPs MUST tell patients why an urgent investigation is being undertaken

**RADIOLOGY (Booked or Incidental Finding)**

- Results suggestive of Lung Cancer:
  1. Results urgently back to GP to make an urgent 2/52 referral (GP to make patient aware of reason for urgent referral) OR
  2. Results directly to 2WW lung cancer clinic and urgent staging CT thorax arranged from radiology & GP and patient notified that patient has been given an urgent appointment and why
- Results NOT suggestive of Lung Cancer:
  1. Results to GP for management in Primary Care or referral to routine chest clinic (If the symptoms persist despite negative CXR and appropriate management, the GP should repeat the CXR after 4 weeks or refer to routine chest clinic)

**Chest Physician Consultation**

- CT Chest followed by bronchoscopy or CT/USS guided biopsy or aspiration OR
- Full PFTS including TLCO

**Lung MDM**

- Potentially curative Rx
  - Book PET-CT & inform surgical centre of potential case
  - EBUS if required
  - Book OPD
- Palliative Oncology
  - ChemoRx
  - RadioRx
- Supportive and Palliative Care
- Oncology
  - Adjuvant Rx

**Definitive Surgery @ Surgical Centre**

**Post Surgery:**

- CXR @ 6/52
- Histology from centre to local MDT no longer than 2/52 post op
- Full surgical discharge summary to Local MDT and GP no later than 1/12
- Local MDM Discussion @ 6/52 with ALL results

**Emergency Admission if clinically indicated OR**

(this would come via a different route)
2.0 Referral Pathway for Primary Care

PATIENT PRESENTS WITH

(a) Any of the following:
- Unexplained Haemoptysis
- Unexplained persistent (> 3.52)
  - Chest/shoulder pain
  - Dyspnoea
  - Weight loss
  - Chest signs
  - Hoarseness
  - Finger clubbing
  - Cervical/supraclavicular lymphadenopathy
  - Cough with or without any of the above
  - Features suggestive of metastases from lung Cancer
  - Clinical signs of pleural effusion

(b) Patients presenting with symptoms or signs in list (a) AND the following risk factors:
- Current or Ex smoker
- COPD
- Exposure to asbestos
- Hx of cancer (especially H&N)

May be referred earlier for CXR or to a specialist

Persistent haemoptysis in smokers or ex smokers who are 40 years or older

- Superior vena caval obstruction
- Stridor

CXR
(Report back in 5 days)

Normal CXR
BUT high clinical suspicion of cancer

CXR report suggesting referral due to high suspicion of lung cancer
(Including non-resolving pleural effusion or consolidation on repeat CXR at 4/52)

URGENT REFERRAL

Consider immediate referral
3.0 Overview

In describing a model of care for patients presenting with suspected/proven lung cancer or mesothelioma, the Lung Tumour Site Specific (TSSG) has endeavoured to reconcile the following views:

- Calman – Hine / Cancer Reform Strategy recommendations that patients should be managed as closely to home as possible.
- To improve the outcomes in lung cancer by co-ordinating the treatment of specialist teams, i.e.:
  - Initial investigation by local Thoracic Physician
  - Referral for thoracic surgery to Guy’s Hospital
  - Radiotherapy / oncology to Kent Oncology Centre, Maidstone/Pembury and Canterbury Hospitals

4.0 Background

Patients with lung cancer have a poor prognosis because:

1. They often present late
2. They often have significant co-morbidity, e.g., chronic cardio/respiratory problems which preclude definite therapy
3. The aggressive nature of most tumours

The Lung TSSG is committed to improving the outcome of patients with lung cancer by:

1. Encouraging early referral from primary care “at risk” patients
2. To provide a rapid comprehensive pathway for investigation and treatment

5.0 Process and Terminology

5.1 Tumours

- Carcinoma of the bronchus
- Metastatic carcinoma
- Mesothelioma

5.2 Referral guidelines and process

General Practitioners are encouraged to arrange an urgent chest x-ray for patients in the following circumstances:

- Smokers who present with new respiratory symptoms
- Smokers who complain of persisting cough or increasing shortness of breath of ≥3/52 duration
- Any patient over the age of 40 who presents with haemoptysis and progressive shortness, weight loss or chest/shoulder pain without an obvious cause
- Hoarseness
- Finger Clubbing
- Features suggestive of lung metastases
- Persistent cervical/supraclavicular lymphadenopathy
- Features suggestive of pleural effusion

GPs should always tell patients why they are being referred for an urgent CXR
5.2.1 Radiology departments

Results Suggestive of Cancer

1. Results to be urgently (preferably by phone and to the GP in person) relayed to the GP to make an urgent 2WW referral (OR)
2. Results directly to the 2WW lung cancer clinic ensuring that the GP and the patient are aware that a referral has been made and that this may well include moving straight on to CT pre outpatient appointment

Results NOT Suggestive of Cancer

1. Results to GP for management in Primary Care or referral to routine chest clinic

Note: If symptoms persist despite a negative CXR and appropriate management, the GP should repeat the CXR after 4/52 or refer to the routine chest clinic

5.3 Criteria for urgent 2WW referral

1. Unexplained Haemoptysis in smokers / ex smokers (more than 15 pack years) over the age of 40
2. Signs of Superior Vena Cava Obstruction – consider emergency admission
3. Stridor – consider emergency admission
4. CXR suggesting lung cancer – including non-resolving pleural effusion or consolidation on repeat CXR

5.4 Local specialist chest clinic

Patients should be seen within two weeks of referral.

Patients in whom diagnosis of lung cancer is likely and in whom further investigation is appropriate, i.e., there is no underlying co-morbidity that would preclude further investigation or treatment require:

- Fibre-optic bronchoscopy and / or percutaneous lung biopsy
- Staging CT scan of chest and upper abdomen
- Full PFTs
- EBUS

Note: It is agreed that the CT must be undertaken prior to the Bronchoscopy.

Other investigations that should be undertaken:

- Full blood count
- Creatinine and electrolytes
- Serum calcium
- Liver function tests
- Electrocardiogram
- Coagulation
Please note that NO biochemical tumour markers should be routinely requested. In situations where histology, cytology, histochemical and cytochemical have failed to accurately pinpoint the primary tumour then biochemical markers should be employed to help facilitate diagnosis.

Patients who have non small cell carcinoma of the lung which is potentially resectable should be referred for a PET scan following which the patient will be assessed / admitted for thoracic surgery.

If PET scan shows that the tumour is not resectable, or the patient is subsequently deemed non-resectable as a result of thoracoscopy, then referral to second MDM is appropriate for radiotherapy and / or chemotherapy and / or palliative care.

PET/CT should be undertaken prior to radical therapy.

If the patient has small cell carcinoma, the patient should be referred direct for chemotherapy that would be undertaken at the local cancer unit or at the Kent Cancer Centre.

Following initial MDM, patient is seen and a treatment plan outlined, e.g., referral to Thoracic Surgeon, Oncologist, Radiotherapist or palliative care.

Note: All Kent & Medway (K&M) reporting pathologists follow The Royal College of Pathologists Histopathology Reporting on Cancers guidelines – a copy of which is available through the K&M Cancer website:-
http://www.kentmedwaycancernetwork.nhs.uk/resource-library/pathology-ccag/

6.0 Imaging

K&M cancer imaging guidelines are located on the K&M cancer website on the following link:
http://www.kentmedwaycancernetwork.nhs.uk/resource-library/diagnostics-ccag/

7.0 Surgical Referrals

7.1 Non small cell carcinoma

The patients with T1-2 N0-1 tumours are generally resectable but the relation of the tumour to other structures within the thorax will also affect the resectability as does the patient’s co-morbidity. Some patients with localised tumours that are determined non-resectable will be suitable for radical radiotherapy. Selected patients with T3 tumours may be considered for resection.

7.2 Small cell carcinoma

The majority of patients with small cell lung cancer will be offered chemotherapy+/- radiotherapy. However selected patients with localised small cell carcinoma, especially if there is any diagnostic doubt, may be considered for surgery.
7.3 Referral to surgical centre

The thoracic surgical centre for Kent and Medway is Guy’s and St. Thomas’ Hospital (GSTT). Cardiothoracic surgeons from GSTT are named core team members for all the K&M lung cancer MDTs.

**Note:** Contact details can be accessed via the following link:  
http://www.kentmedwaycancernetwork.nhs.uk/resource-library/

7.4 Overview of surgical pathway

**Note:** Surgical pathway details can be accessed via the following link:  
http://www.kentmedwaycancernetwork.nhs.uk/resource-library/lung-tssg/

8.0 Non Surgical Oncology Management

The Non surgical oncology management of lung cancer has been agreed (and is regularly updated) by the Lung Cancer Non Surgical Oncology Group. A copy of the K&M oncological guidance documentation is located on the K&M Cancer website on the following link:  
http://www.kentmedwaycancernetwork.nhs.uk/resource-library/lung-tssg/

9.0 Supportive & Palliative Care

Patients who have inoperable non-small cell carcinoma or patients with small cell carcinoma with extensive metastatic disease should be referred for palliative treatment. The prime aim of the treatment is to alleviate symptoms.

Patients with significant pleural effusions should have an aspiration performed and if this improves symptoms, a chemical pleurodesis should be performed, either as a bedside procedure or as a surgical procedure using VATS techniques or as a (local anaesthetic) medical thoracoscopy. If this is unsuccessful then a pleurex drain should be considered.

Patients with haemoptysis and / or bone pain due to metastatic disease should be referred for radiotherapy.

In occasional cases, surgical or interventional procedures may be required for the relief of such conditions such as large airway obstruction by stents, cryosurgery or laser, SVCO by stenting or bypass and emphysema or lung abscess requiring drainage.

Patients requiring laser therapy will be treated at the Middlesex Hospital. Patients requiring stenting will be treated at either the Middlesex Hospital or Guy’s and St. Thomas’ Hospital.

Palliative care provision should be made for all patients:
- Hospital teams, including the Clinical Nurse Specialists for lung cancer patients
- Primary Health Care Team would provide for palliative care at home
- General Practitioner should be informed within 24 hours of the diagnosis, of the treatment plan and medication.

The management of symptoms, psychological, social and spiritual issues, the communication of the diagnosis, and any associated problems should be within the domain of all health care professionals.
Referral to specialist palliative care services should be considered when these issues have not been resolved, in particular for patients with:

- Complex symptom management issues, which are difficult to manage
- Difficulties in adjusting to the diagnosis or disease progression
- Psychological and family issues – such as communication problems within the family
- Spiritual issues – such as the challenging of belief system/faith/cultural values as a result of the cancer

Consideration of specialist palliative care or support should be given throughout the patient pathway, particularly:

- At the Multidisciplinary Team Meeting
- When no active treatment is considered
- After active treatment
- At relapse
- In the terminal stages

10.0 Follow Up

The aim of ongoing care should be the support of the patient and family, the appropriate investigation and management of new problems and/or disease progression and the ongoing surveillance of patients with pleural effusion from an unknown primary.

5yr Follow Up. Following a surgical resection there should be regular follow up at 6 weeks, and every 6 months.

Patients with pleural effusions or mesothelioma may have regular surveillance by the Chest Physician.

Patients who receive radiotherapy or chemotherapy should have regular contact during the treatment schedule and one appointment following this.

All patients should have open access to the Lung Cancer Nurse by telephone and, if necessary, at a clinic. The Nurse will assess and arrange for appropriate investigation and referral to the Chest Physician or Oncologist. No routine follow up appointments will be given, and this should be clearly explained to patients, with the offer of open access to the Nurse for advice and support.

Patients who have palliative treatment may be referred to the Specialist Palliative Care (hospice) team and the Lung Cancer Nurse can be the point of contact for the team or the patient.

11.0 Personnel and Contact Information

A comprehensive, up to date list of MDM contact details can be found on the K&M Cancer website via the following link: http://www.kentmedwaycancernetwork.nhs.uk/resource-library/
12.0 Data Collection

Collection of data at each stage of the pathway is the responsibility of the team looking after the patient at that time. The minimum dataset agreed by the TSSG will be a combination of those data items that meet national requirements, and additional items as agreed by the TSSG.

National data requirements will include:

- Cancer Waiting Times monitoring, including Going Further on Cancer Waits. The data items required will be as defined in ISB0147 at the time of referral and/or treatment.

  Details of the Cancer Waiting Times dataset are available from:  
  [http://nww.connectingforhealth.nhs.uk/nhais/cancerwaiting/documentation](http://nww.connectingforhealth.nhs.uk/nhais/cancerwaiting/documentation)

  Cancer Waiting Times data will be submitted according to the timetable set out in the National Contract for Acute Services.

- The Cancer Outcomes and Services Dataset. The data items will be as defined in ISB1521, and any subsequent versions, at the time of diagnosis and/or treatment. The requirement will include those fields listed in the “Core” section of the dataset, and any additional tumour site specific sections, as applicable.

  Details of the COSD are available from:  

  Cancer Registration and Cancer Outcomes and Services (COSD) data will be submitted according to the timetable set out by National Cancer Registration Service.

- Where applicable, teams will also collect additional data items as defined in any corresponding National Clinical Audit Support Programme (NCASP) audit dataset.

  Details of these datasets are available from:  

  Data for NCASP audits will be submitted, where applicable, according to timetables as agreed by the TSSG, and within the overall submission deadlines for each audit.

Submission of data to meet these national requirements will be the responsibility of each individual Trust.

Note that these standards are subject to variation from time to time, and where these requirements change, the data items required to be collected by the team will also change in line with national requirements.

Local data requirements will include any additional data items as agreed by the TSSG. These must be selected to avoid overlap with any existing data items, and where possible must use standard coding as defined in the NHS Data Dictionary.

Where possible and applicable, InfoFlex will be used for the collection and storage of data.

Additional areas of the COSD, relating to pathology, radiotherapy, SACT, diagnostic imaging and basic procedure details will feed into the dataset from other nationally mandated sources. It is the responsibility of each team to ensure that the whole of the relevant dataset is collected, and it is acknowledged that this may come from a variety of sources.
### Acronyms in common usage throughout K&M Cancer documentation:

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<tr>
<td>CNB</td>
<td>Cancer Network Board</td>
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<tr>
<td>CYP</td>
<td>Children &amp; Young People (in relation to the IOG)</td>
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<tr>
<td>DCCAG</td>
<td>Diagnostic Cross Cutting Advisory Group</td>
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<tr>
<td>DOG</td>
<td>Disease Orientated Group (NSSG/TSSG/TWG)</td>
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<td>DVH</td>
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<td>EK</td>
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<td>GSTT</td>
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<td>Improving Outcomes: A Strategy for Cancer</td>
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<tr>
<td>LSESN</td>
<td>London &amp; South East Sarcoma Network</td>
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<tr>
<td>MFT</td>
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<td>NOG</td>
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<td></td>
<td><em>(Permanent oncologist sub group of the TSSGs with a specific responsibility for chemo/rad pathways and advice to the TSSG, K&amp;M and geographical locations on new drugs)</em></td>
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<td><em>(Network agreed disease site specific clinical guidelines)</em></td>
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<td>QEQM</td>
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<td>QoL</td>
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14.0 Document Administration

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<tr>
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<td>H.Taylor/R.Shah</td>
</tr>
<tr>
<td>Co-author(s)</td>
<td>D.Oliver/A.Jackson/N.Goldsack</td>
</tr>
<tr>
<td>Current version number</td>
<td>5.0</td>
</tr>
<tr>
<td>Current status</td>
<td>Final/Published</td>
</tr>
<tr>
<td>Agreed as “Fit for Publication” by</td>
<td>April 2014</td>
</tr>
<tr>
<td>Original publication date</td>
<td>September 2005</td>
</tr>
<tr>
<td>Expected review date by</td>
<td>April 2016</td>
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   Riyaz.Shah@nhs.net                            Tel: 01622 227035

Revision History

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<td>Published – clarification of outside referrals</td>
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<td>Dec 2012</td>
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<td>Final/Published – final revisions agreed &amp; signed off by Lung DOG meeting 13/11/12</td>
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<tr>
<td>Feb 2014</td>
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